

[Lépingle, Dominique](#); [Nualart, David](#); [Sanz, Marta](#)

**Dérivation stochastique de diffusions réfléchies. (Stochastic derivatives of diffusions with reflections).** (French) [Zbl 0688.60043](#)

[Ann. Inst. Henri Poincaré, Probab. Stat.](#) 25, No. 3, 283-305 (1989).

In the past years, a differential calculus on Wiener space has been developed by various authors, motivated in particular by the Malliavin calculus, and has become an important part of Stochastic Analysis. However, except for solutions of stochastic differential equations, derivatives of Wiener functionals have been computed only in a few examples.

The authors of the paper under review compute the derivative of the solution of a stochastic differential equation with reflection. They then apply their result to obtain a sufficient condition for the law of the solution at time  $t$  to be absolutely continuous with respect to Lebesgue measure.

Reviewer: [E.Pardoux](#)

**MSC:**

[60H10](#) Stochastic ordinary differential equations (aspects of stochastic analysis)

[Cited in 4 Documents](#)

[60H07](#) Stochastic calculus of variations and the Malliavin calculus

**Keywords:**

[Malliavin calculus](#); [derivatives of Wiener functionals](#); [stochastic differential equation with reflection](#)

**Full Text:** [Numdam](#) [EuDML](#)